


Pandemic Influenza: Planning for the Possibility

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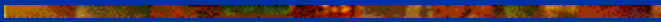
Emergency Preparedness and Response Programs

Virginia Department of Health



“Although exactly when and where the next influenza virus will emerge is not known, it is likely that the outcome will vary from serious to catastrophic...”

Pandemic Influenza Preparedness
and Response Plan, Department of
Health and Human Services





Influenza

- “Flu season” happens every year: Seasonal influenza
 - Respiratory disease, spread mainly by respiratory droplets
 - Once infected, immune from that strain
 - People infected with influenza A and B: annual flu vaccine provides protection for 2 strains of influenza A and influenza B
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Influenza

- Only influenza A causes pandemics or global epidemics
 - Influenza A identified by 2 surface proteins required for viral infection of cells and release from cells: hemagglutinin (H) and neuraminidase (N)
 - Influenza A virus keeps changing, in drifts and shifts
 - Drift – small change flu A, occurs on ongoing basis; reason for different flu vaccine each year
 - Shift – flu A - sudden change, new virus, no one immune – may cause pandemic
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Influenza Pandemics

- Worldwide epidemic of influenza
 - New subtype after antigenic shift
 - Ability to infect humans
 - Sustained person-to-person transmission
 - Pandemics: 1918, 1957, 1968
 - 1918: H1N1, most severe with 20-50 million deaths
 - 1957: H2N2
 - 1968: H3N2
 - Pandemic scares: 1976, 1997, 1999
 - 2005-2006?
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H5N1 Asian Epizootic: Avian flu

- Highly Pathogenic Avian Influenza (HPAI)
 - Dec 2003 to present
 - Poultry outbreaks in numerous countries in Asia, Indonesia, Europe, Middle East and Africa – millions of birds culled
 - 258 human cases in 10 countries (as of November 13, 2006): 153 deaths (59% mortality)
 - Historically unprecedented
 - Geographical scope
 - Economic consequences
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H5N1

- Outbreak in birds: many countries, 3 continents
 - No human pandemic at this time
 - Criteria for pandemic:
 - ✓ Novel strain that is not recognized by the human immune system
 - ✓ Causes increased sickness and death
 - X Sustained person-to-person transmission
 - Concern that virus will change to increase person-to-person transmission
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World Health Organization Stages of a Pandemic

Period	Phase	Phase Description
Interpandemic	1	No new influenza virus subtypes detected in humans, and there is low risk of human cases
	2	Circulating animal influenza virus subtype poses a substantial risk of human disease
Pandemic Alert	3	Humans become infected with a new virus subtype, but there is no or very limited human-to-human transmission
	4	Small clusters of localized outbreaks with limited human-to-human transmission
	5	Larger clusters of a novel influenza strain appear, although human-to-human spread is still localized
Pandemic	6	Increased and sustained transmission of novel influenza in the general population

Unique Features of Pandemic Flu

- Multiple areas affected at the same time
 - More difficult to shift resources
 - Could go on for months in a community, with 2-3 different waves over 18-24 mo
 - Healthcare workers will be affected
 - Preventive and therapeutic agents delayed and in short supply
 - New vaccine must be made for the pandemic virus
 - Widespread illness would impact essential services
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Concerns Related to a Pandemic

- Assure healthcare services to those who are ill
 - Medical surge planning
 - Allocation of limited resources
 - Adequate protection for healthcare providers
 - Availability of essential services
 - Continuity of Operations for government/businesses:
anticipate high rates of absenteeism
 - Limiting community transmission
 - Risk communication issues
 - Plans for families and individuals
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History of Pandemic Influenza Planning in Virginia

- VDH Pandemic Influenza Plan in place since 2002, revised as new information available
- VDH Pandemic Influenza Advisory Committee formed in spring, 2005 with broad representation; meets quarterly
- Major revision of VDH Pandemic Influenza Plan in early 2006, after publication of DHHS Pandemic Influenza Plan in November, 2005
- Ongoing review of plan with input from Advisory Committee and others – available on web site: www.vdh.virginia.gov/pandemicflu

Virginia Pandemic Flu Summit and Follow-up

- Pan Flu Summit in March, 2006: increased awareness, with breakout discussion sessions
 - www.vdh.virginia.gov/pandemicflu
 - Weekly reports to Governor, VA planning activities
 - Links to other sites, interactive
 - Engage key state agencies to address non-health pandemic planning
 - Focus now on local planning as well as implementation of federal and state recommendations
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Beyond the Virginia Pandemic Influenza Summit

- Pandemic flu planning should be extension of local emergency planning for all hazards
 - Local government leadership key
 - Local plan is a community plan
 - Assure involvement of all aspects of healthcare community: hospitals, outpatient treatment centers, long-term care facilities, homecare, pharmacies physicians, pharmacists, nurses, mental health providers
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Beyond the Virginia Pandemic Influenza Summit

- Include involvement of:
 - Schools
 - Colleges and universities
 - First responders – fire, EMS
 - Law enforcement
 - Business community
 - Media
 - Assisted living and other social services programs
 - Volunteer, non-profit groups
 - Faith community
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Issue: Medical Care

- Access to and provision of healthcare is critical to reduce morbidity/mortality
 - Surge planning
 - Great demand for beds, intensive care, ventilators, other supplies (lab, PPE)
 - Impact of staff absenteeism
 - Risk of nosocomial (hospital) outbreaks of influenza
 - Special needs populations
 - Issues regarding management of fatalities
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Distribution of Limited Resources

- Includes: anti-virals, vaccines, medical equipment (ventilators), supplies (masks, other PPE)
- Important to have these discussions now on use of limited resources so decisions are as transparent as possible

Issue: Vaccine

- Several supply stages:
 - No vaccine available for 4-6 months- Community control measures important
 - Limited vaccine supply when initially available
 - Doses released in batches
 - Focus on vaccine priority groups
 - Adequate vaccine supply eventually – Expand use
- Priorities may shift as more is known about pandemic and as supply increases

Issue: Antivirals

- Good news: Can be used for prophylaxis (prevention) and for treatment (to reduce illness duration and severity)
- Bad news:
 - Only one type effective against H5N1
 - Supplies are very limited, drugs relatively expensive
 - Virus could develop resistance
 - Effectiveness in pandemic not known

Issue: Antivirals

- Federal stockpile of antivirals growing
- States also have option to stockpile antivirals at discounted federal contract price
- Goal: antivirals to treat 25% of US population
- Shortage of antivirals now
- Use of limited supplies initially
 - Use for treatment only or allow for prophylaxis
 - Maintain access to healthcare
 - Public safety and essential services

Volunteer Planning

- Coordinate activities
 - Medical Reserve Corps
 - Citizen Corps
 - American Red Cross
 - Faith communities, churches
- Determine specific roles of different volunteer groups during pandemic

Assure Continuation of Essential Services: COOP

- Define essential services
- Identify essential personnel
- Incorporate into Continuity of Operations/Continuity of Government planning
 - plan for absence of 20-40% of workforce at any one time
- Review and address HR policies
 - Allow people who are ill to remain at home
 - Leave time to care for family members

PanFlu-Specific Recommendations

- Address methods of maintaining essential services while limiting risk of disease
 - Increased use of distance technology
 - Equip key staff with needed laptops and remote access capabilities (broadband, DSL, air cards, etc.)
 - Consider provisioning multiple access methods for critical staff
- Verify work-at-home capabilities
 - Exercise regularly

More PanFlu Recommendations

- Initiate planning activities early, prior to a widespread outbreak:
 - Pre-establish communications channels
 - Local government agencies, business community, public
 - Key supplier coordination
 - Purchase and stockpile critical equipment and supplies ahead of time
- Prepare for psychological aspects
- Prepare for labor shortage
 - Develop pools of available staff
 - Refresh/train staff regularly, including cross training

More PanFlu COOP

- Discuss expectations with staff early
 - Communications will be key
 - Need reliable, credible sources of information
 - Need coordinated communication channels
 - Rely on both internal/external channels
 - Monitor state of transportation systems
 - May need to consider relief for regulatory requirements
 - Remain flexible/adaptable
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Role of Isolation and Quarantine: Need for Further Discussion

- Isolation of ill persons, to prevent spread of disease
- Quarantine: separation of people exposed but not ill
 - Most useful early to limit geographic spread
 - Very limited, if any, value during pandemic when virus has spread widely

Issue: Community Transmission

- Options to limit community spread: social distancing
 - School closures
 - Recommendations about telecommuting
 - “Snow days”
 - Isolation/quarantine early in the pandemic (when to stop implementing?)
 - Discouraging/banning large gatherings (indoor/outdoor)
 - Benefits and impact uncertain
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Risk Communication

- Essential at all stages, beginning before pandemic spread
 - Constantly changing situation
 - Messages must be relayed in appropriate/timely manner
 - Recommendations will change over time
 - Effective response to pandemic requires public support – decisions will not be easy but must be fair and balanced
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Federal Role in Planning

- Set general guidelines and criteria
- Provide federal stockpile of medications, supplies
- Support enhanced supply of antivirals
- Enhance vaccine production and support new vaccine production techniques
- Support laboratory identification procedures

State Roles in Planning

- Public information and education
 - Broad agency involvement in planning
 - Assuring surge capacity of the healthcare and public health communities
 - Establish community control and infection control guidelines, policies for stockpiling of antivirals, guidelines for allocation of vaccine and antivirals (specific priority categories)
 - Isolation/quarantine guidelines and decisions
 - Laboratory testing
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Local Roles in Planning

- Public information and education
 - Community involvement and ownership of community plans
 - Assuring surge capacity of the healthcare and public health communities
 - Many decisions on community control, stockpiling of antivirals, specific allocation of vaccine and antivirals (numbers of people and identification of people in specific categories) made at local levels
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State Exercises

- Tabletop: August 17, 2006
- Full exercise in late October, 2006
 - Response to large pandemic
 - Include broad range of partners, state/local levels
 - Use/dispensing of vaccines/antivirals
 - Community containment, incl isolation/quarantine
 - Healthcare surge
 - Test of SNS receipt in National Capital Region

ISSUES


- Pre-script **Public Service Announcements (PSAs)**
- Develop recommendation for **Federal Assistance** with specific requests for support. Request delivery of VA portion of **SNS Antivirals**.
- Coordinate **behavioral health** issues with DMHMRSA. Local Health Departments will coordinate with CSBs and other local resources
- Continue to monitor/address **hospital surge status**. Local Health Districts to coordinate with hospitals and other local partners, including local government.
- Complete **Antiviral Distribution Plan**.

ISSUES (cont'd)

- Coordinate community **fatality management** issues
 - Monitor **school closure**, continue to develop options for closure recommendations.
 - Consider potential for recommending **cancellation of public gatherings**.
 - Track and respond to emerging **Environmental Health and Drinking Water** issues.
 - Monitor and coordinate MRC activations and **volunteer** support operations, locally and regionally.
 - Track implementation of **COOP** responses
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Summary

- Many complex issues
 - Pandemic will happen sometime
 - Could occur soon or in distant future
 - With H5N1 or another strain of influenza A
 - We don't now know exactly which control measures will control spread: for which populations, at what times, in what areas
 - Planning and discussions must occur at the local level, with effective public education
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- <http://www.vdh.virginia.gov/pandemicflu>
 - <http://pandemicflu.gov>